VOL. 42 FLUID PHASE EQUILIBRIA AUGUST 1988

CONTENTS

(Abstracted/Indexed in: Curr. Contents/Eng. Technol. Appl. Sci. Curr. Contents/Phys. Chem. Earth Sci., Sci. Cit. Index, Phys. Abstr., ASCA)

Committees, Sponsors ..... vi–vii
Preface ..... viii–ix
High pressure polar compounds phase equilibria calculation: mixing rules and excess properties
Ch. Lermite and J. Vidal (Rueil-Malmaison, France) 1–19
A new three-parameter cubic equation of state for polar fluids and fluid mixtures
Y. Iwai, M.R. Margerum and B.C.-Y. Lu (Ottawa, Ont., Canada) 21–41
Generalization of the binary interaction parameter of the Peng–Robinson equation of state by component family
H. Nishiumi, T. Arai (Tokyo, Japan) and K. Takeuchi (Chiba, Japan) 43–62
Vapor–liquid equilibria with the vdW-711 equation of state
G.J. Czerwienski (Morristown, NJ, U.S.A.), P. Tomasula (Philadelphia, PA, U.S.A.) and D. Tassios (Athens, Greece) 63–83
Prediction of binary and ternary critical properties using Deiters' equation, hard sphere and hard convex body equations of state
D.E. Mainwaring (Hawthorn, Vic., Australia), R.J. Sadus and C.L. Young (Parkville, Vic., Australia) 85–103
Prediction of ternary vapor–liquid equilibria by mixing rule containing regular solution and residual excess free energy terms
K. Tochigi, K. Kurihara and K. Kojima (Tokyo, Japan) 105–115
Correlation of VLE data for binary mixtures of 1-alkanols and normal hexane with the Trebble–Bishnoi equation of state
M.A. Trebble (Calgary, Alb., Canada) 117–128
Gibbs free energy analysis for the supersaturation limits of methane in liquid water and the hydrate–gas–liquid water phase behavior
P. Englezos and P.R. Bishnoi (Calgary, Alb., Canada) 129–140
Thermodynamics of 1-chloroalkanes or α,ω-dichloroalkanes + tetrachloromethane mixtures
H.V. Kehiaian (Paris, France) and B. Marongiu (Cagliari, Italy) 141–163
Prediction of thermodynamic properties of ternary hydrocarbon mixtures containing olefins. I. 1-Alkenes + benzene + n-alkanes
M.A. Villamañan (Valladolid, Spain) and H.V. Kehiaian (Paris, France) 165–172
On the application of solution of group theory to dilute mixtures of isomers
P. Alessi, M. Fermeglia, I. Kikic and G. Soave (Trieste, Italy) 173–183
Gas solubility data bank for further development of phase equilibrium models
M. Molnar-Jobbagy, J. Rarey-Nies and J. Gmehling (Dortmund, F.R.G.) 185–194
Determination of ternary VLLE by $P(X_1, X_2)$ measurements
L. Karrer and J. Gaube (Darmstadt, F.R.G.) 195–207
Vapour–liquid equilibria and critical phenomena in methanol + n-alkane systems
Th.W. de Loos, W. Poot and J. de Swaan Arons (Delft, The Netherlands) 209–227
Isothermal liquid–vapour equilibria of mixtures containing organic compounds. 3. Excess Gibbs free energies of cyclohexane + a linear ether
L. Lepori, E. Matteoli (Pisa, Italy) and B. Marongiu (Cagliari, Italy) 229–240
Solid–liquid–vapour equilibrium of binary systems
A. Kbiązczak and J.J. Kosinski (Warsaw, Poland) 241–259
Solubility of nonpolar gases in hexamethylenoxide
F. Gibanel, M.C. López, M.A. Gallardo, J.S. Urieta and C. Gutiérrez Losa (Zaragoza, Spain 261–268
Phase equilibria and activity coefficients of complexes in MCl_2–α-picoline–chlorobenzene systems
M. Kluczkowski (Gdansk, Poland) 269–285
A static apparatus for measurement of low vapor pressures. Experimental results on high molecular-weight hydrocarbons
K. Sasse, J. Jose and J.-C. Merlin (Villeurbanne, France) 287–304
Author Index 305

VOL. 42 FLUID PHASE EQUILIBRIA AUGUST 1988

CONTENTS

(Abstracted/Indexed in: Curr. Contents/Eng. Technol. Appl. Sci. Curr. Contents/Phys. Chem. Earth Sci., Sci. Cit. Index, Phys. Abstr., ASCA)

Committees, Sponsors ..... vi–vii
Preface ..... viii–ix
High pressure polar compounds phase equilibria calculation: mixing rules and excess properties
Ch. Lermite and J. Vidal (Rueil-Malmaison, France) 1–19
A new three-parameter cubic equation of state for polar fluids and fluid mixtures
Y. Iwai, M.R. Margerum and B.C.-Y. Lu (Ottawa, Ont., Canada) 21–41
Generalization of the binary interaction parameter of the Peng–Robinson equation of state by component family
H. Nishiumi, T. Arai (Tokyo, Japan) and K. Takeuchi (Chiba, Japan) 43–62
Vapor–liquid equilibria with the vdW-711 equation of state
G.J. Czerwienski (Morristown, NJ, U.S.A.), P. Tomasula (Philadelphia, PA, U.S.A.) and D. Tassios (Athens, Greece) 63–83
Prediction of binary and ternary critical properties using Deiters' equation, hard sphere and hard convex body equations of state
D.E. Mainwaring (Hawthorn, Vic., Australia), R.J. Sadus and C.L. Young (Parkville, Vic., Australia) 85–103
Prediction of ternary vapor–liquid equilibria by mixing rule containing regular solution and residual excess free energy terms
K. Tochigi, K. Kurihara and K. Kojima (Tokyo, Japan) 105–115
Correlation of VLE data for binary mixtures of 1-alkanols and normal hexane with the Trebble–Bishnoi equation of state
M.A. Trebble (Calgary, Alb., Canada) 117–128
Gibbs free energy analysis for the supersaturation limits of methane in liquid water and the hydrate–gas–liquid water phase behavior
P. Englezos and P.R. Bishnoi (Calgary, Alb., Canada) 129–140
Thermodynamics of 1-chloroalkanes or α,ω-dichloroalkanes + tetrachloromethane mixtures
H.V. Kehiaian (Paris, France) and B. Marongiu (Cagliari, Italy) 141–163
Prediction of thermodynamic properties of ternary hydrocarbon mixtures containing olefins. I. 1-Alkenes + benzene + n-alkanes
M.A. Villamañan (Valladolid, Spain) and H.V. Kehiaian (Paris, France) 165–172
On the application of solution of group theory to dilute mixtures of isomers
P. Alessi, M. Fermeglia, I. Kikic and G. Soave (Trieste, Italy) 173–183
Gas solubility data bank for further development of phase equilibrium models
M. Molnar-Jobbagy, J. Rarey-Nies and J. Gmehling (Dortmund, F.R.G.) 185–194
Determination of ternary VLLE by $P(X_1, X_2)$ measurements
L. Karrer and J. Gaube (Darmstadt, F.R.G.) 195–207
Vapour–liquid equilibria and critical phenomena in methanol + n-alkane systems
Th.W. de Loos, W. Poot and J. de Swaan Arons (Delft, The Netherlands) 209–227
Isothermal liquid–vapour equilibria of mixtures containing organic compounds. 3. Excess Gibbs free energies of cyclohexane + a linear ether
L. Lepori, E. Matteoli (Pisa, Italy) and B. Marongiu (Cagliari, Italy) 229–240
Solid–liquid–vapour equilibrium of binary systems
A. Kbiązczak and J.J. Kosinski (Warsaw, Poland) 241–259
Solubility of nonpolar gases in hexamethylenoxide
F. Gibanel, M.C. López, M.A. Gallardo, J.S. Urieta and C. Gutiérrez Losa (Zaragoza, Spain 261–268
Phase equilibria and activity coefficients of complexes in MCl_2–α-picoline–chlorobenzene systems
M. Kluczkowski (Gdansk, Poland) 269–285
A static apparatus for measurement of low vapor pressures. Experimental results on high molecular-weight hydrocarbons
K. Sasse, J. Jose and J.-C. Merlin (Villeurbanne, France) 287–304
Author Index 305